

Mid-term Management Plan

SZ-20
Phase II

Current Status

ZEON

ZEON CORPORATION

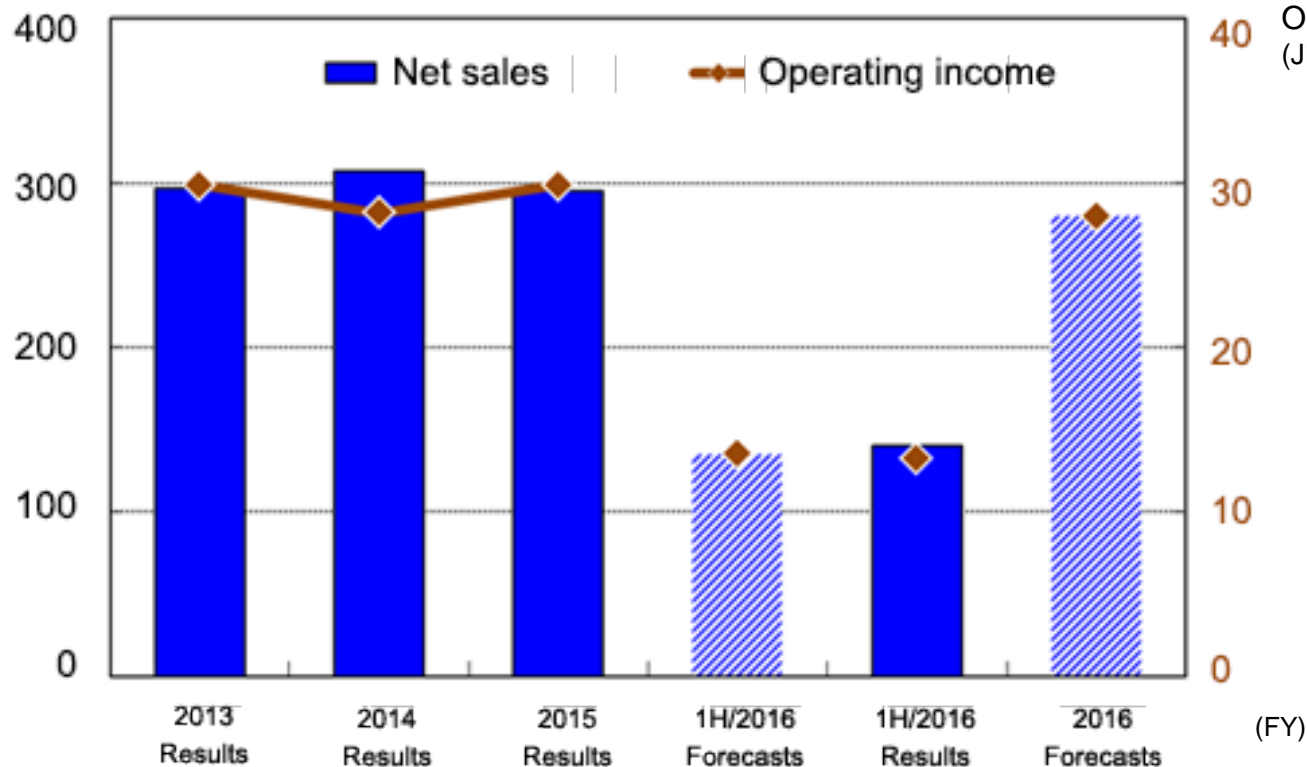
Kimiaki Tanaka
President

October 31, 2016

- 1. Results and Business Environment in First Half of FY2016**
- 2. Business Topics**
- 3. Performance Goals**

Upholding the initial earnings forecast for FY2016

Net sales
JPY (Billion)

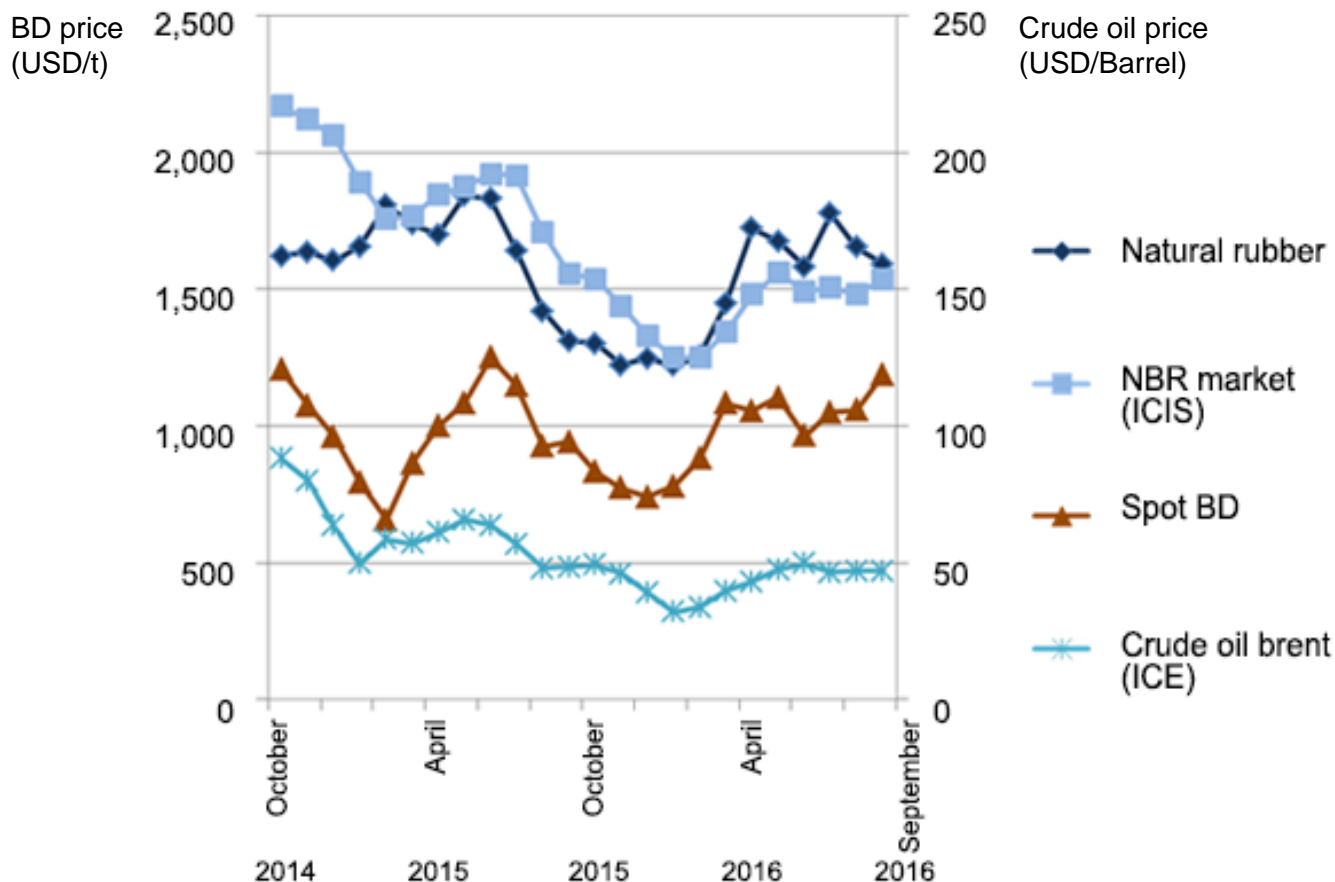


Operating income
(JPY (Billion))

Net sales	JPY (Billion)	296.4	307.5	295.6	135.0	140.2	280.0
Operating income	JPY (Billion)	29.9	28.2	29.9	13.5	13.2	28.0
Exchange rate	JPY/USD	100	109	121	105	108	105
Domestic naphtha price	JPY1,000 /kl	67.2	63.7	42.8	35.0	31.8	35.0

Synthetic rubber market declines due to slump in crude oil and natural rubber markets

Natural rubber, synthetic rubber and BD markets



Natural rubber market: Singapore Commodity Exchange nearby contract price for RSS #3 grade rubber (source: Monthly Statistics Report for Synthetic Rubber)
 NBR market: CFR Southeast Asia (source: ICIS)
 Spot BD: CFR Southeast Asia (source: IHS)
 Crude oil (ICE Brent) (source: IHS)



- **Change**
 - Promote reform and improvement
 - Change management structure
 - Cultivate renewed corporate culture
- **Progress management and quick response**

Enterprise Blueprint for 2020

**Zeon makes
the future today through
the Power of Chemistry**

Consolidated net sales:
JPY 500 billion

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 (FY)

Phase II

SZ-20

SZ-20

**Further strengthen our Elastomer and
Specialty Materials Businesses
via globally expanding operations**

Strategy by Business Segment

Elastomer Business

Further strengthen competitive businesses by responding globally to growth markets

Specialty Materials Business

Expand operations by accelerating R&D in three key fields

Strategy by Business Segment

Elastomer Business

Further strengthen competitive businesses by responding globally to growth markets

Specialty Materials Business

Expand operations by accelerating R&D in three key fields

- ◆ Established a dual location production system for S-SBR and expanded business
- ◆ Increase the number of customers purchasing new Zetpol[®] with excellent heat resistance
- ◆ Expand sales of NBR latex for gloves
- ◆ Implement strategy for expanding C5 chemicals business
- ◆ Construct new PSC plant in Mexico

Expanded business by establishing a dual location production system and advancing new product development

■ Production Strategy

- Tokuyama Plant: Base for new product development and manufacturing proprietary products.
- Singapore Plant: Second line began operations in April 2016. Capacity up from 35,000 tons to 70,000 tons per year. Responding to rising demand through mass production.

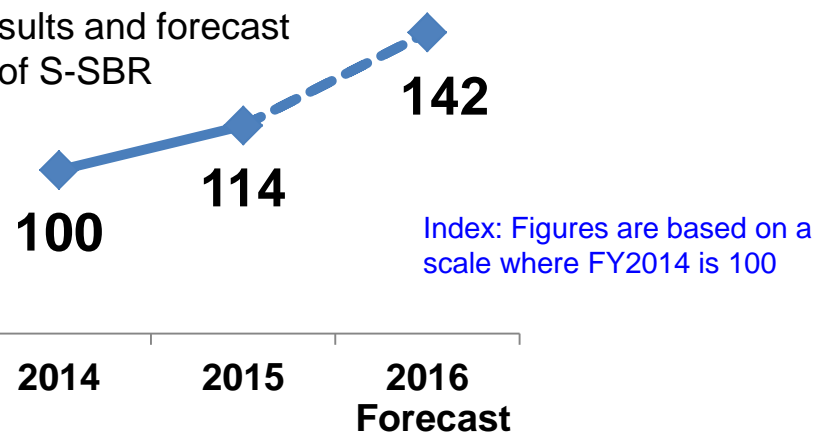
■ Product Strategy

- Non-oil extended rubber: New mainstay products expected to significantly improve fuel economy compared to existing Zeon products.
- Oil extended rubber: Expanded sales of existing products offering superior performance over competitors, and continued to launch new products.



Singapore Plant

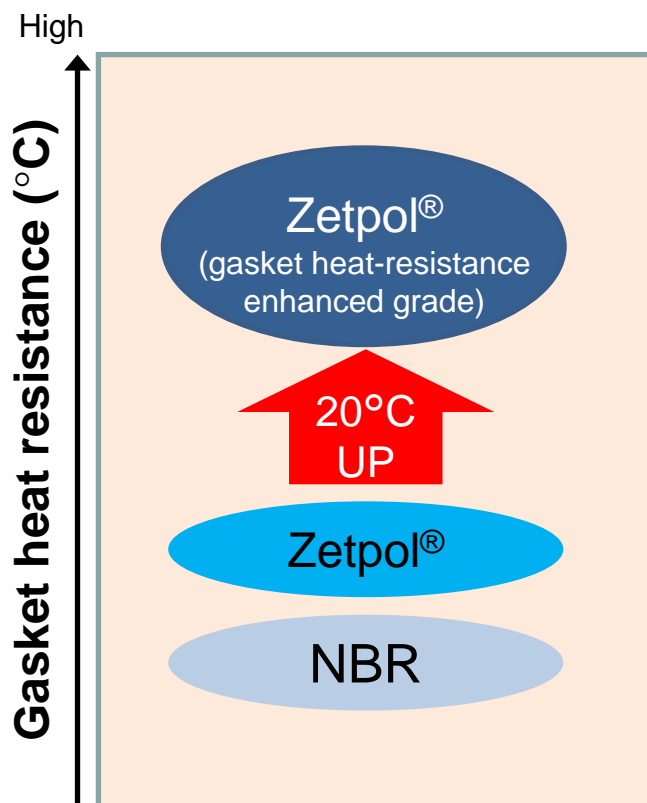
Sales results and forecast of S-SBR



- Discussion for business consolidation with Sumitomo Chemical remains on course for the end of December (as scheduled)

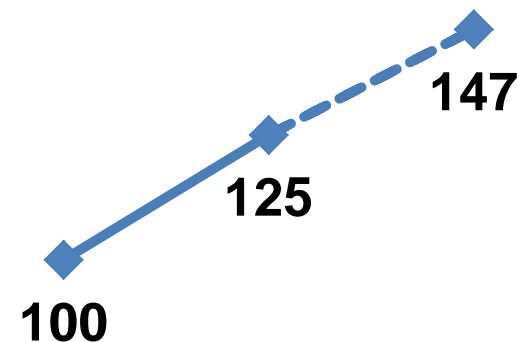
Providing highly functional, low-cost and energy saving automotive components.

- Superior heat-resistance leads to excellent growth prospects in following applications: gaskets, seals and treating agents for core wires used in timing belt



Zetpol® production facility in Kawasaki Plant

Sales results and forecast of Zetpol® (gasket heat-resistance enhanced grade)



Index: Figures are based on a scale where FY2014 is 100

2014 2015 2016
Forecast

Growth in NBR glove market continues. Sales of new products expanded

Latex for gloves

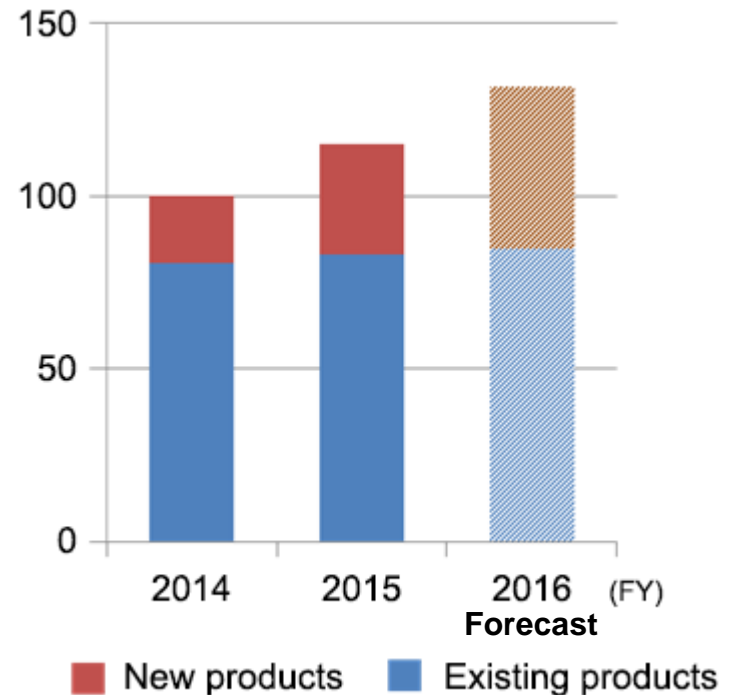
Market for gloves using NBR shows annual growth of 7%

Use of NBR Latex for Gloves

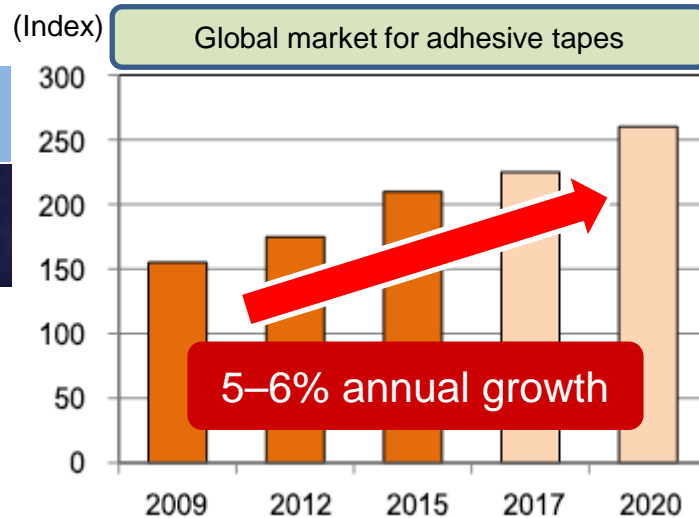
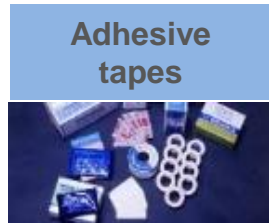


Sales volume for latex for gloves

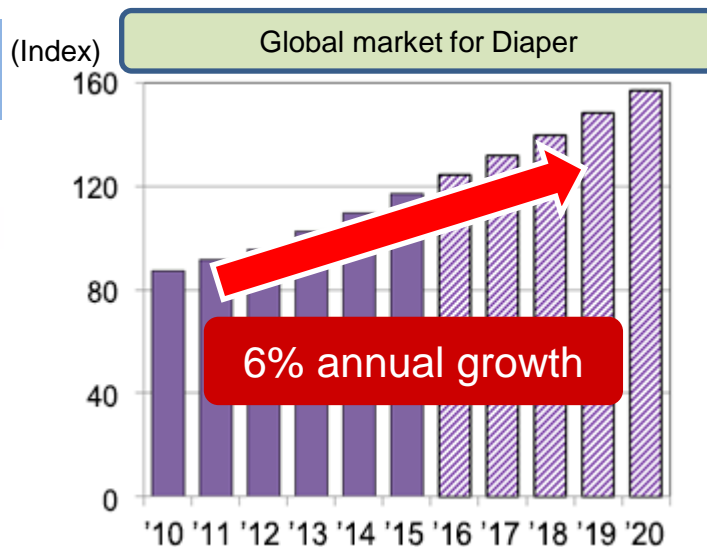
(Index)



Capital investments responding to the growth in major markets

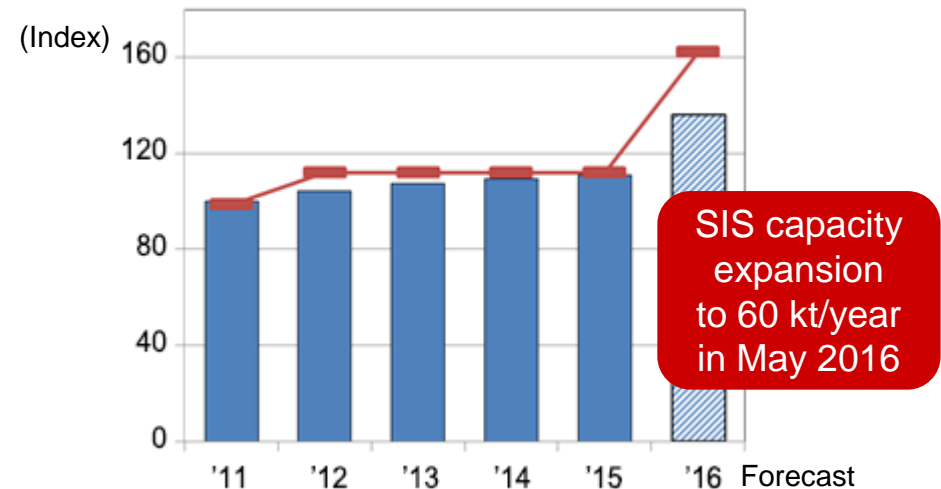


Source: Zeon estimates based on data provided by The Freedonia Group

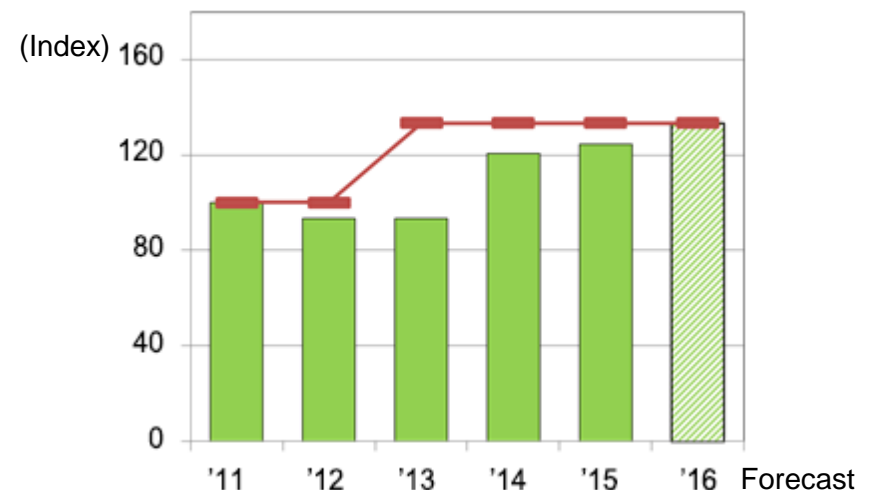


Source: Estimates by Zeon

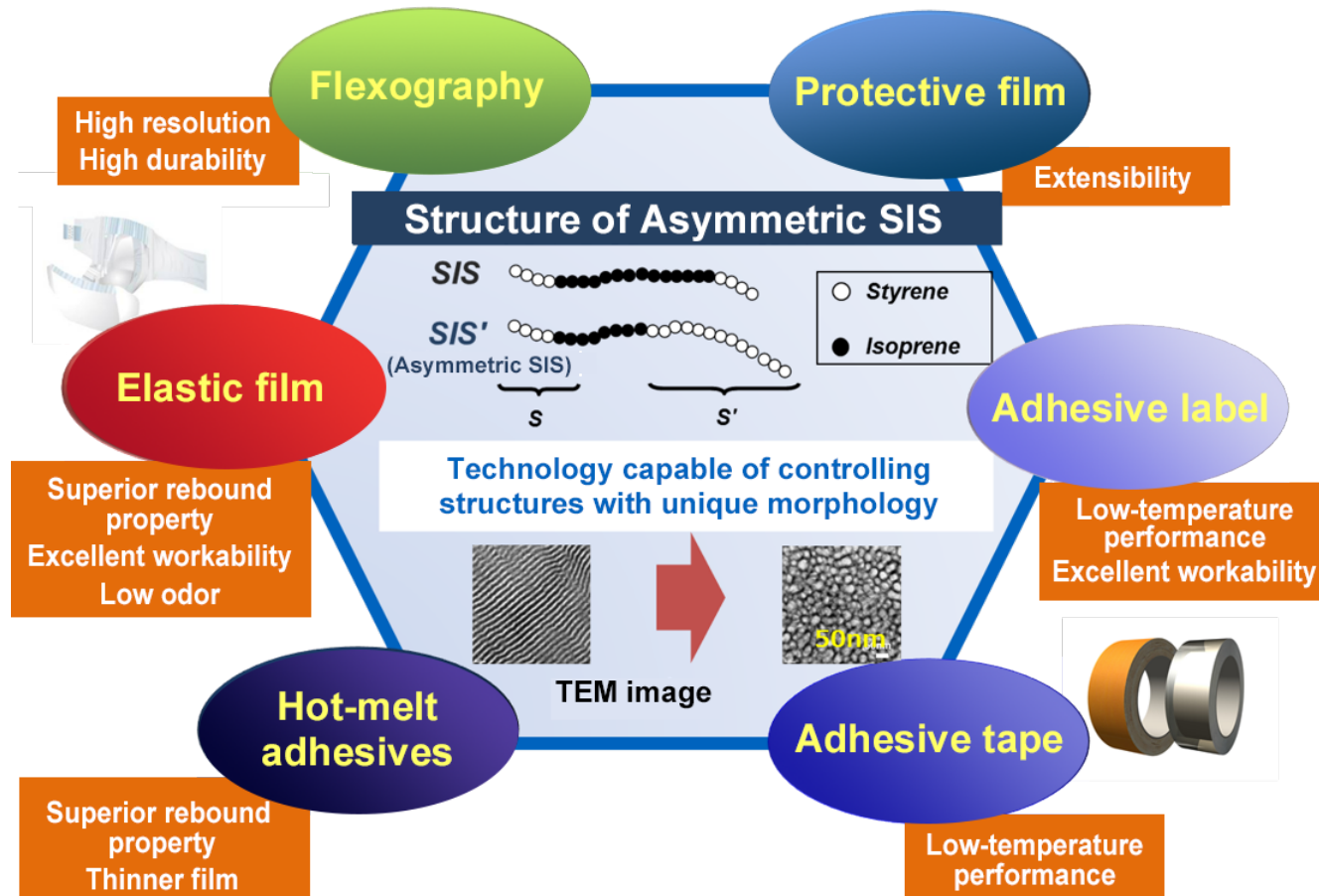
Zeon sales and production capacity for SIS



Zeon sales and production capacity for hydrocarbon resin



Diversification of SIS application with asymmetric technology



New PSC Plant in Mexico

- ◆ New plant in Mexico to produce PSC, used for automobile interiors
- ◆ Third manufacturing location to meet the needs of an expanding market (following Japan and China)



Powder Slush Compounds

- PVC-based compounds for powder slush molding
- Superior design, moldability, and low-temperature properties

PSC application: cover material for automobile interiors



Zeon Kasei Mexico S.A. de C.V.

- ◆ Location: San Luis Potosí City
- ◆ Production capacity:
 - Phase 1: 1,200 tons/year
 - Phase 2: 1,200 tons/year
 - (total: 2,400 tons/year)
- ◆ Start of production: April 2017 (tentative)

Rendering



Strategy by Business Segment

Elastomer Business

Further strengthen competitive businesses by responding globally to growth markets

Specialty Materials Business

Expand operations by accelerating R&D in three key fields

Realizing an Advanced
Information Society

Saving, Storing and
Creating Energy

Enhancing QOL
(Quality of Life)

Three Key Specialty Material Fields

IT Components

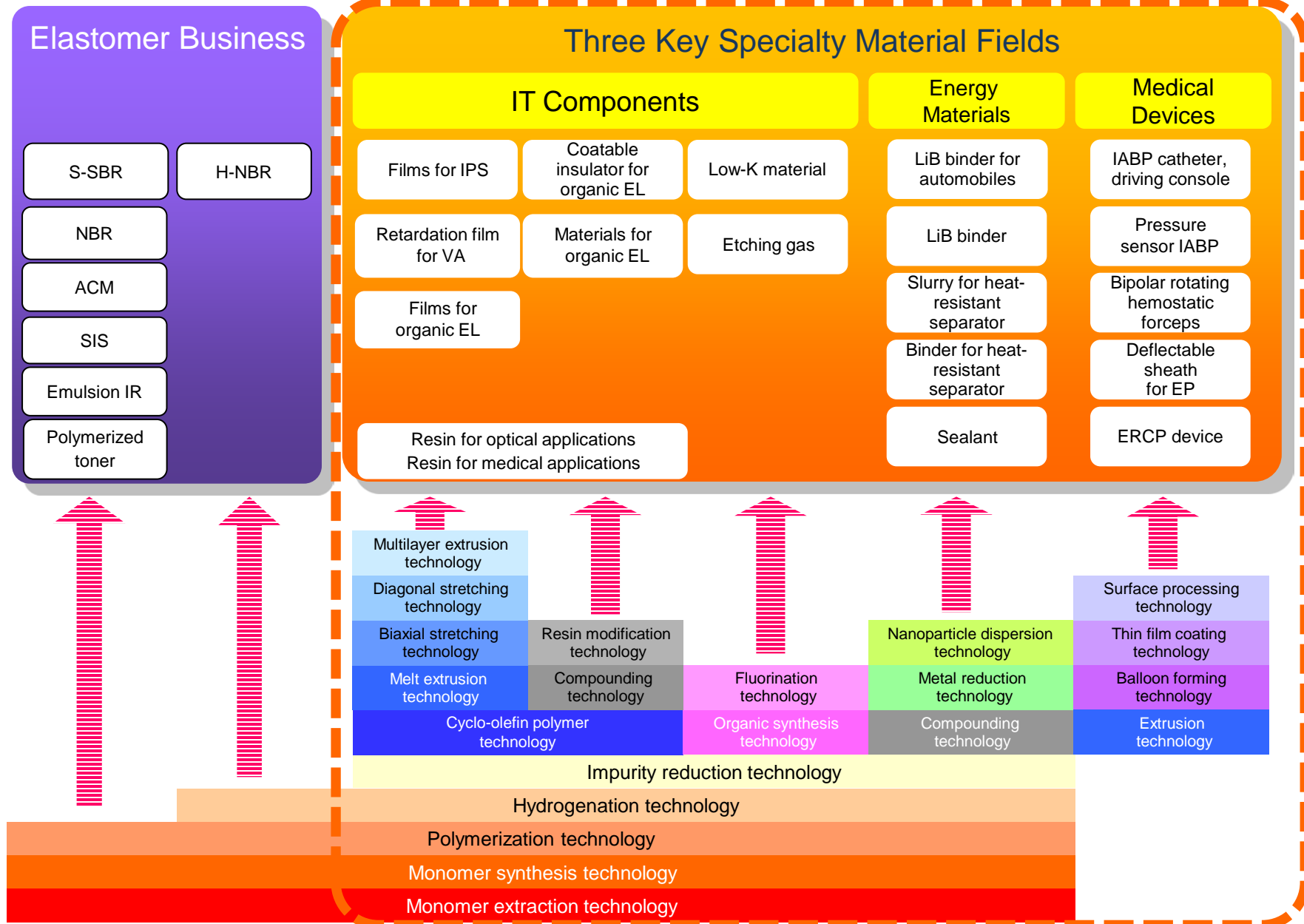
Optical, packaging,
electronic applications

Energy Materials

Medical Devices

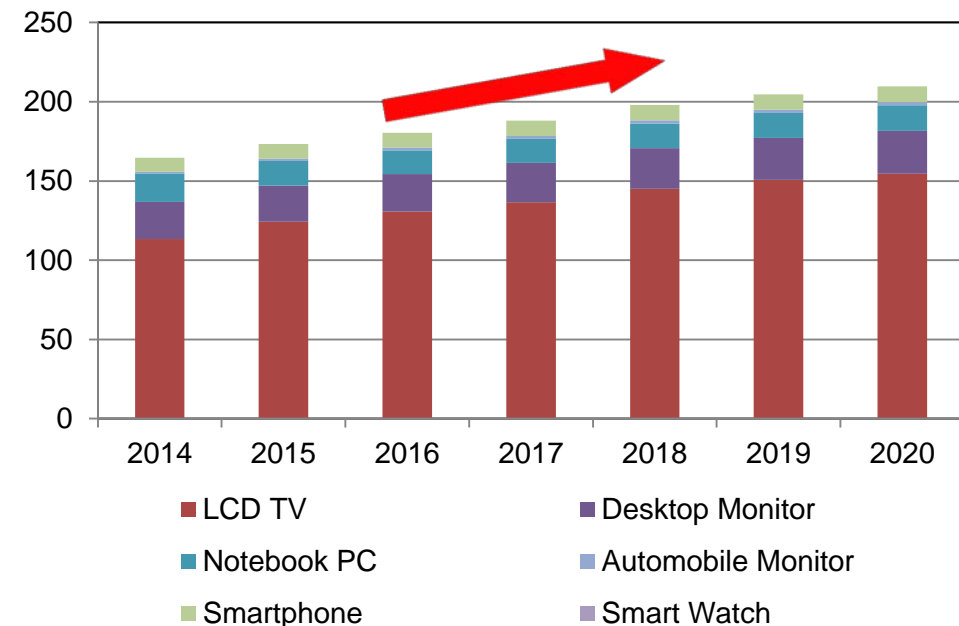
Specialty Materials (proprietary materials developed based on
Zeon's comprehensive use of the C5 fraction)

- ◆ Optical applications: ZeonorFilm™
- ◆ Energy materials (Li-ion battery materials)
- ◆ Medical devices
- ◆ Specialty materials: Carbon nanotubes (CNT)



Film demand is growing in LCD with higher resolution and larger screens

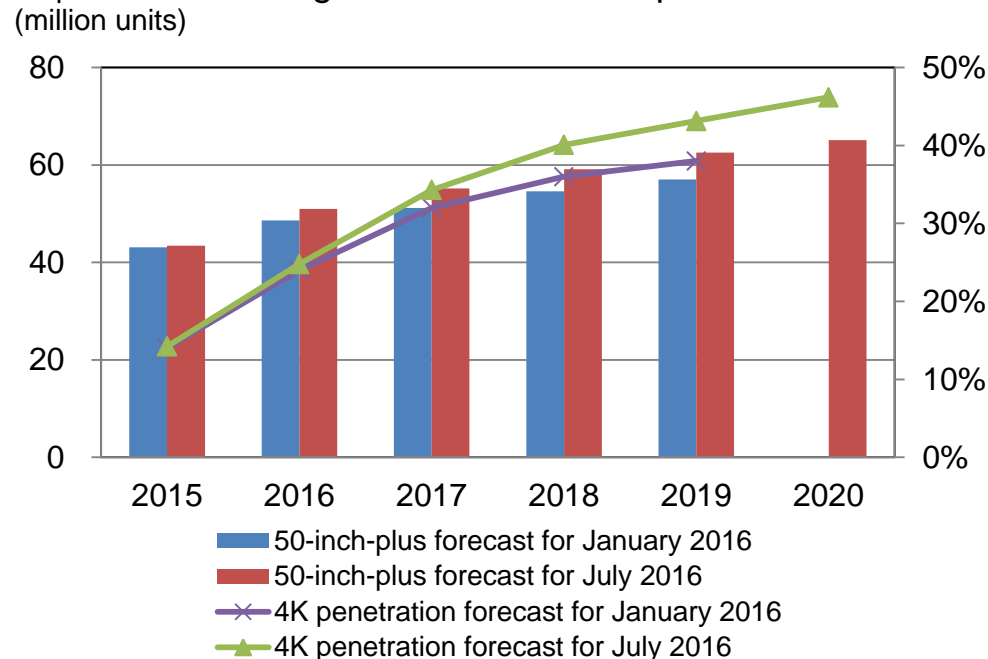
Panel size (million m²) **LCD Panel shipments (based on panel size)**



Area-based expansion continues in LCD panel market

Shipment forecast for 50-inch-plus LCD TV

Change in forecast for 4K penetration

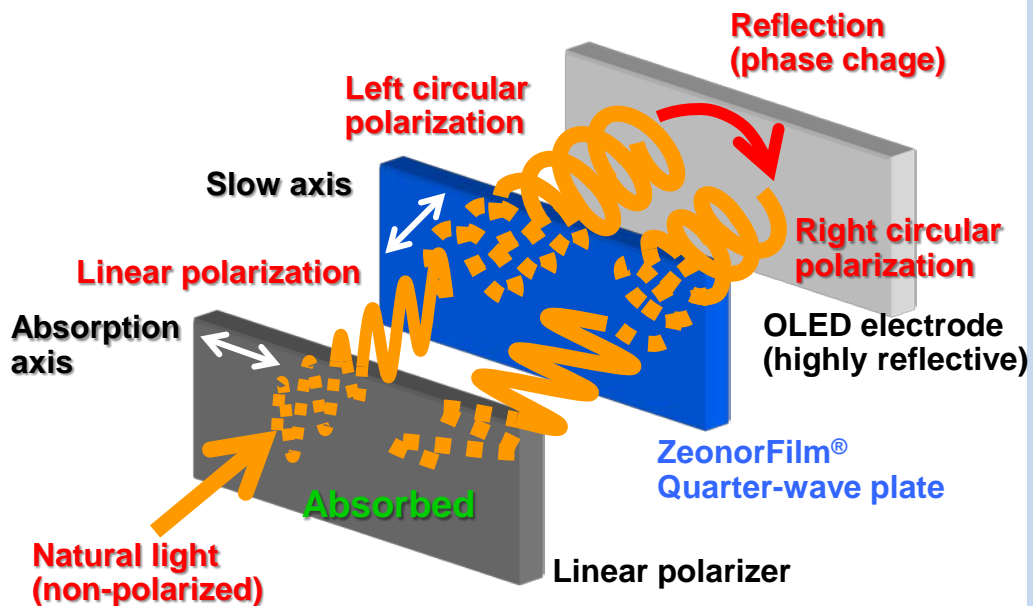


TV market: Size and resolution increasing faster than initial forecast

Robust demand of ZeonorFilm™ for 50-inch-plus, high resolution TV
Pursue sales in small- to mid-sized FPD

Source: 30th, 31st IHS Display Japan Forum/January 2016 (© 2016 IHS)

Antireflection function of ZeonorFilm® in OLED



Improvement of Black-Mode Performance for OLED

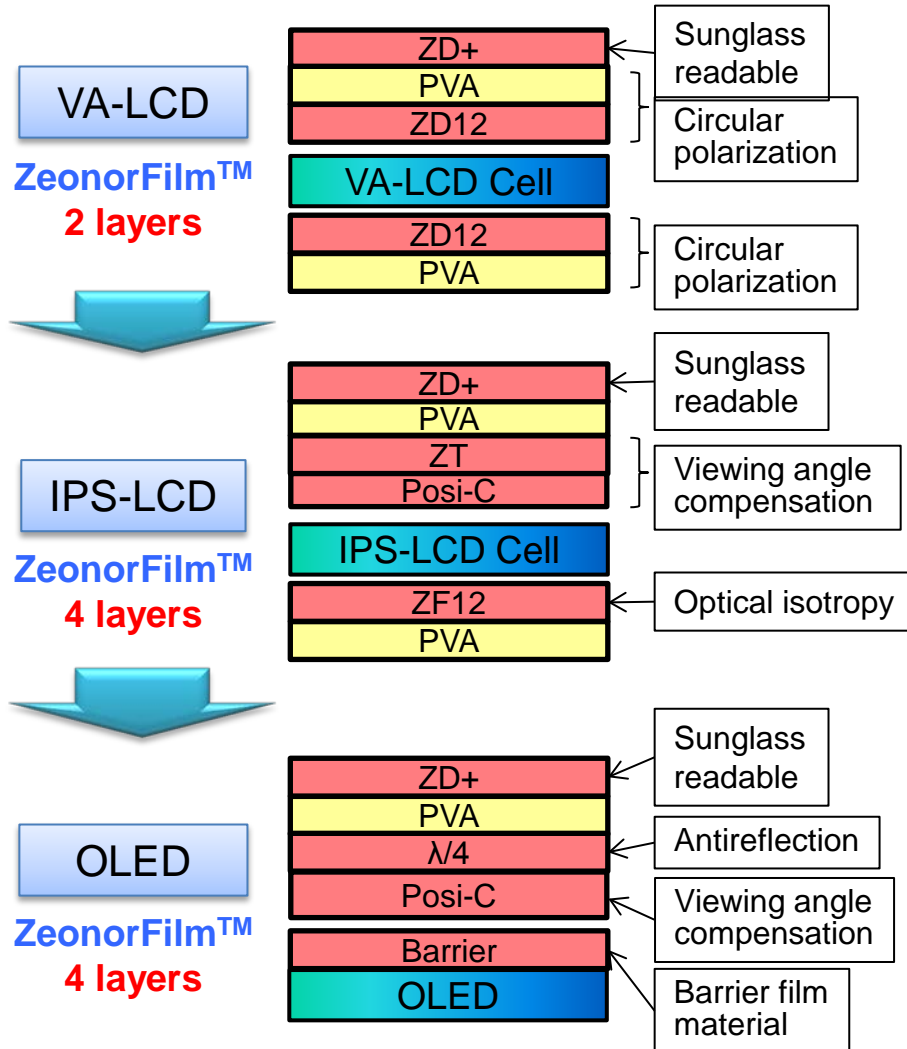


Without circular polarization

With circular polarization

(Linear polarizer + Quarter-wave plate)

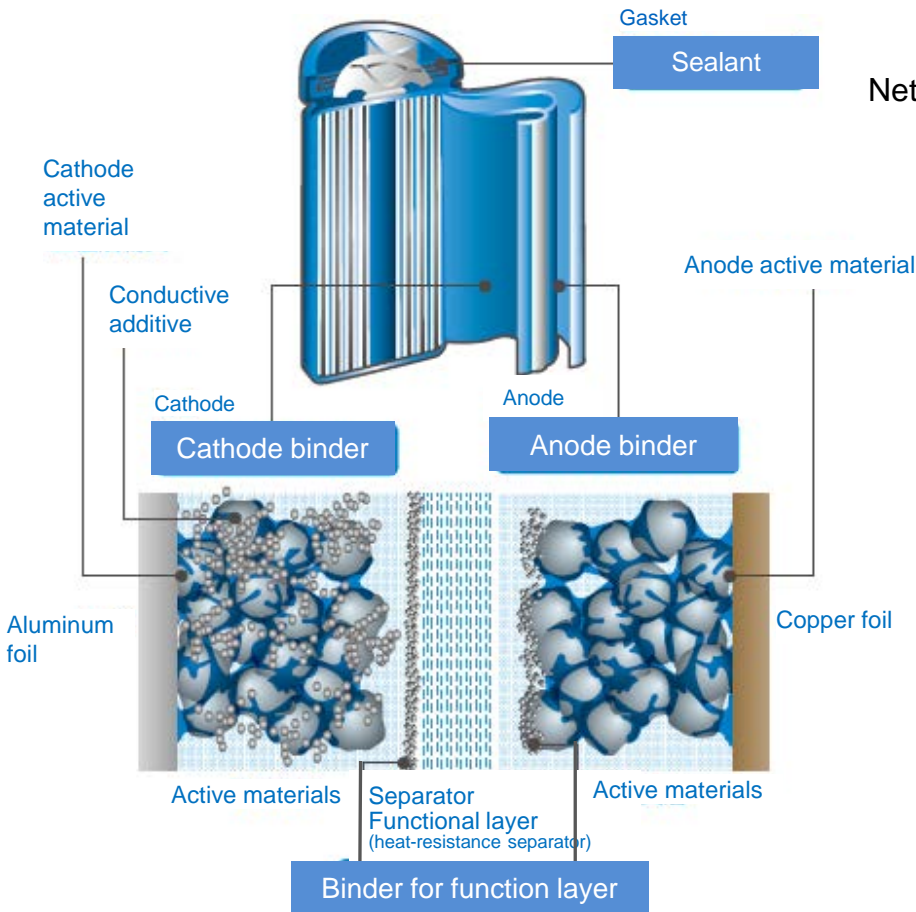
Applications for small- to mid-sized FPDs



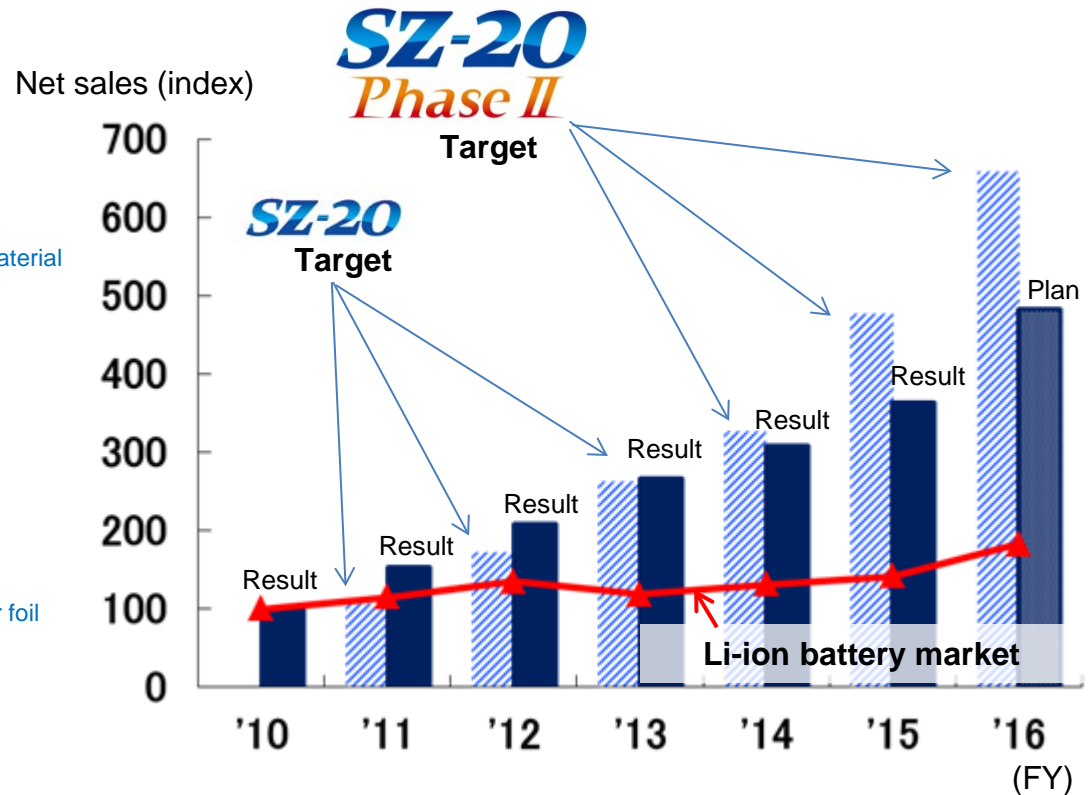
*excl. touch panel substrate

Maintaining steady growth by expanding product line

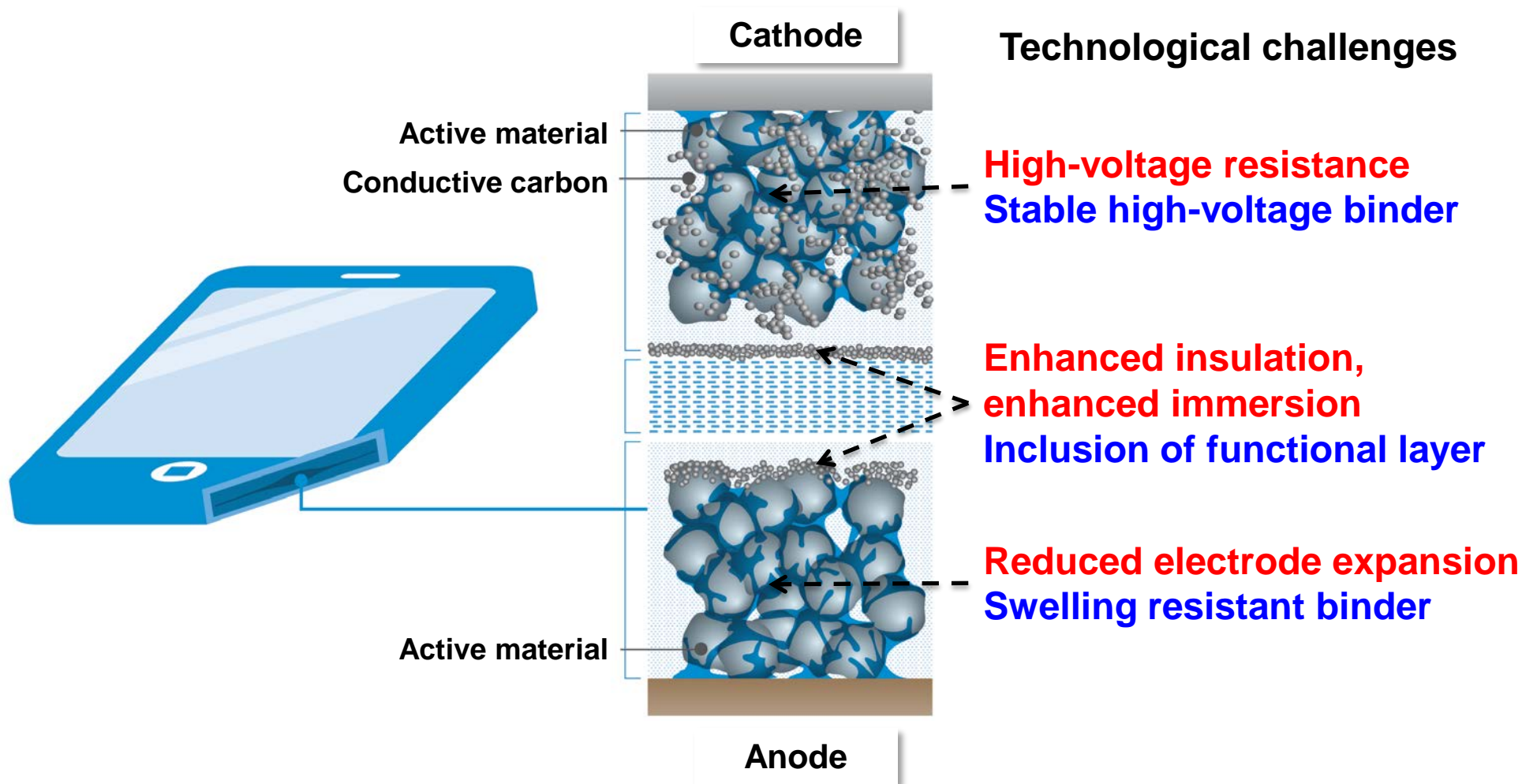
Zeon products for Li-ion batteries



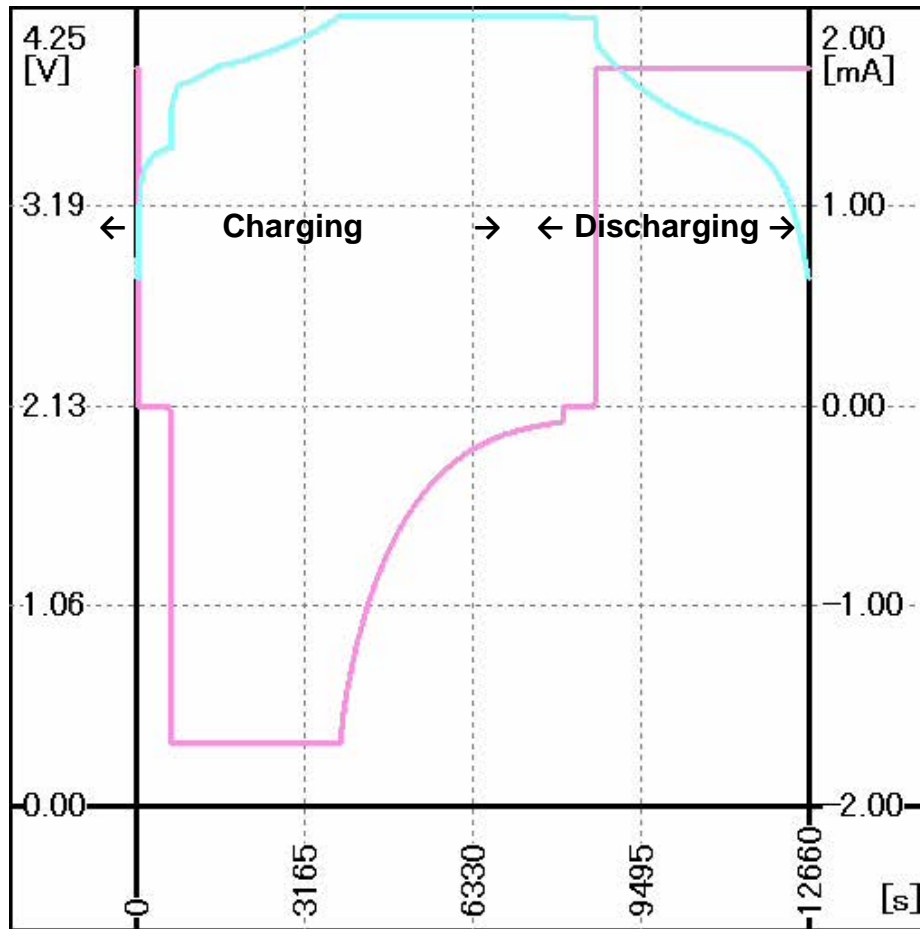
Sales of Zeon battery materials



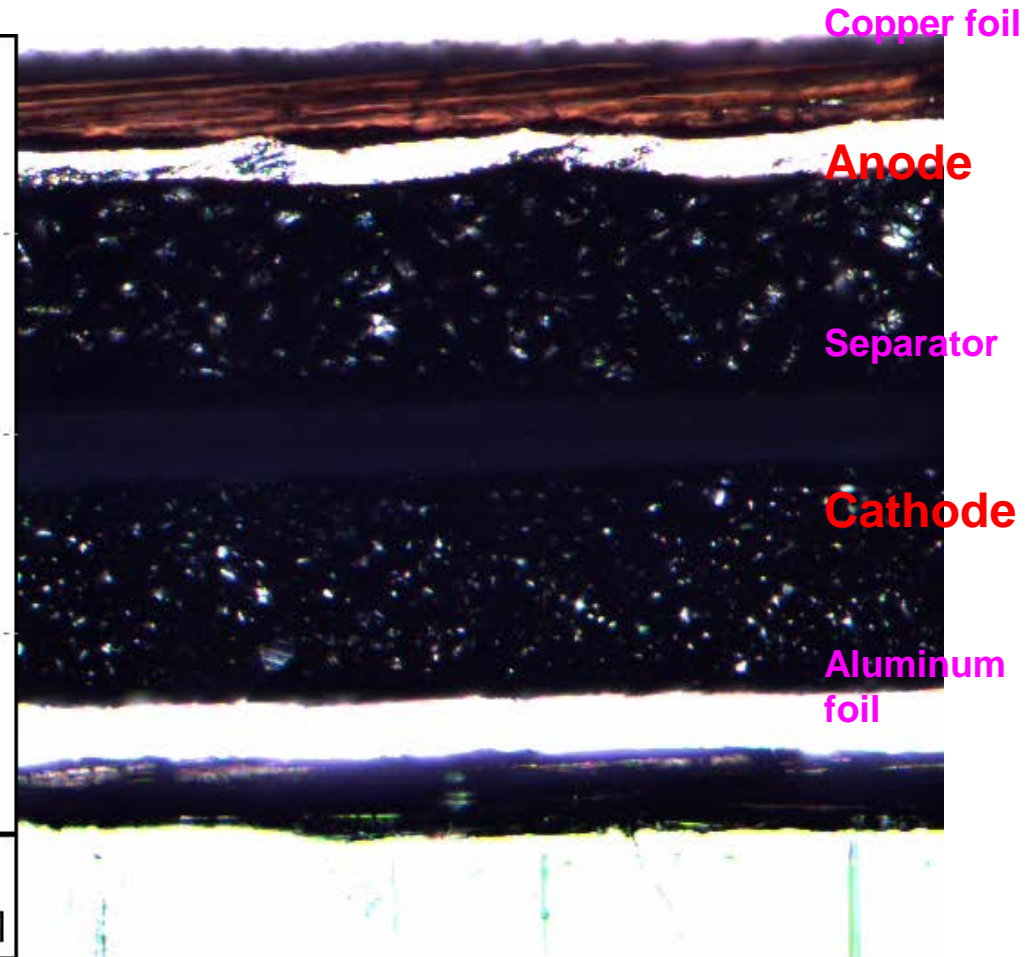
Zeon's solutions for technological challenges of high-capacity pouch cells



Anode binder function for suppressing electrode expansion



Charge and discharge



Cross-sectional observation

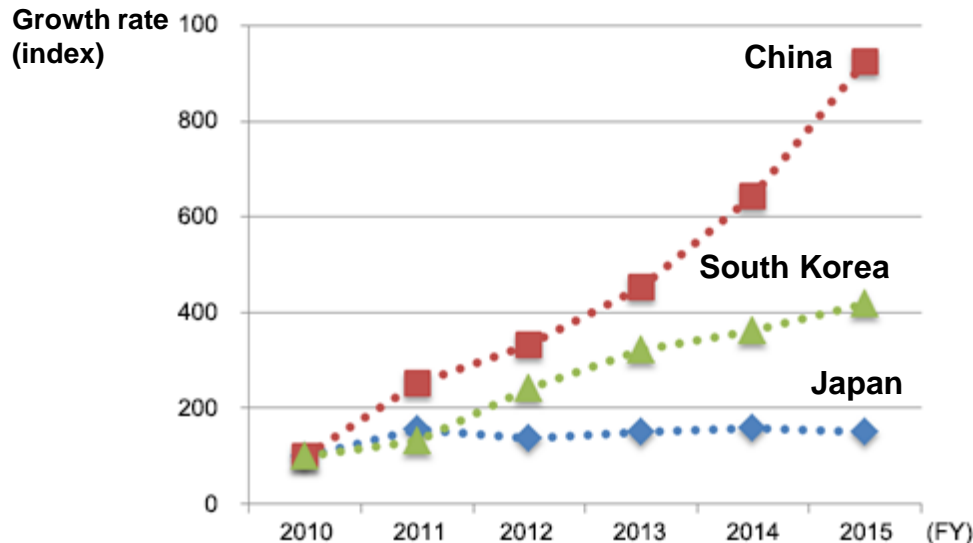
With cooperation from Lasertec Corporation

Growth both in Automotive Market and Markets in South Korea and China

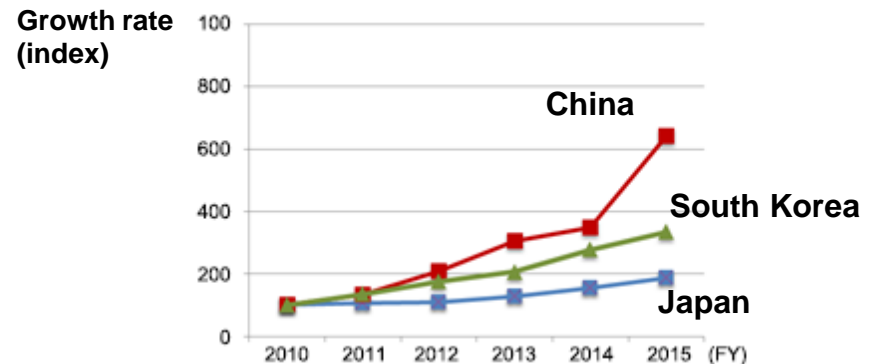
1. Expanded business by increasing products for the automotive market
 - Compared to 2010, sales growth in 2015 significantly exceeded market growth (sales quadrupled in automotive LiB market)

2. Increased sales in high-growth markets in China and South Korea
 - Compared to 2010, sales in China rose by 9.3 times (market growth: 6.4 times), sales in South Korea rose 4.2 times (market growth: 3.3 times)

Sales of LiB materials by region



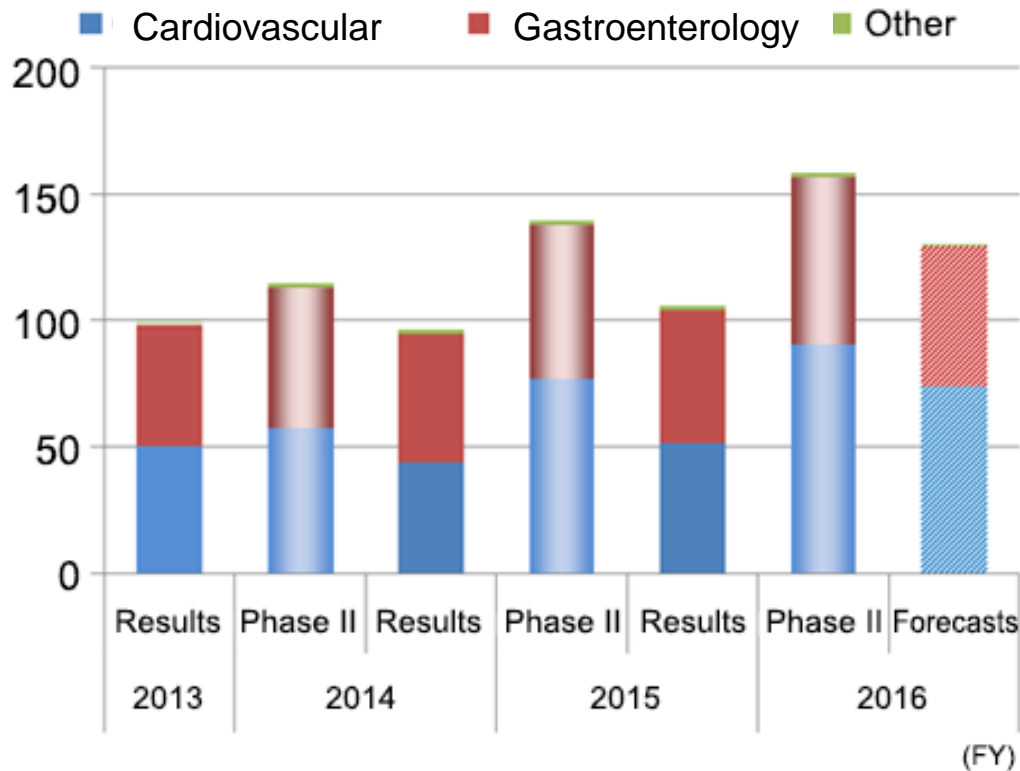
Production of LiB batteries by region



Index: Figures are based on a scale where FY2010 is 100
 Source for market data: Report by B3, Inc., January 2016

Expanding sales of the cardiovascular fields through steady growth in FFR devices

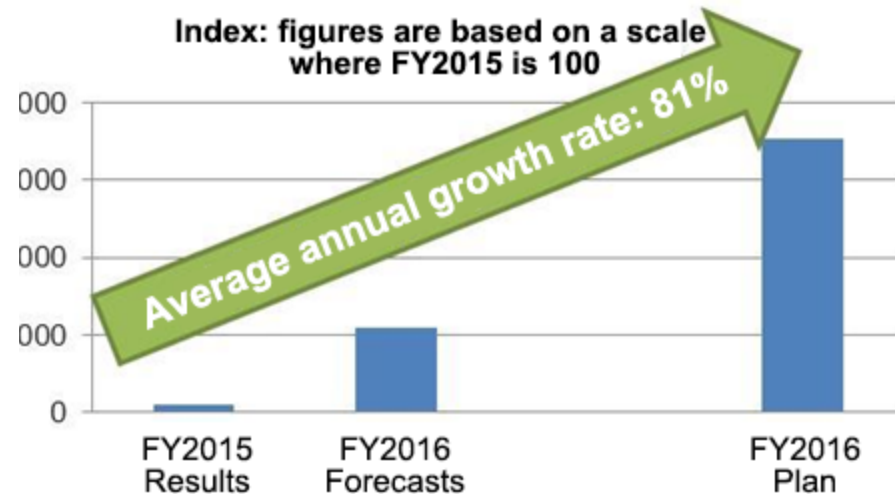
Zeon Medical Inc. sales index FY2013 sales = 100



FFR: Fractional Flow Reserve

Sales expansion exceeding market growth rate led by optical sensor-based FFR device

FFR sales plan



Targeting 30% share (FY2020)

FY2015: Completed mass production plant for SGCNT, began operations

FY2016: Create new applications through integration with existing businesses



Length
1. Length
Maximum length at millimeter scale

Purity
2. High purity Catalytic impurity less than 1%!
(no black spots)

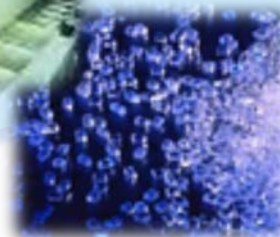
Surface area
3. Large surface area (specific surface area: larger than 800 m²/g)
Largest carbon-based fiber substance!

SGCNT production plant
Start operations
Product name: ZEONANO™ SG101



Highly heat-resistant rubber

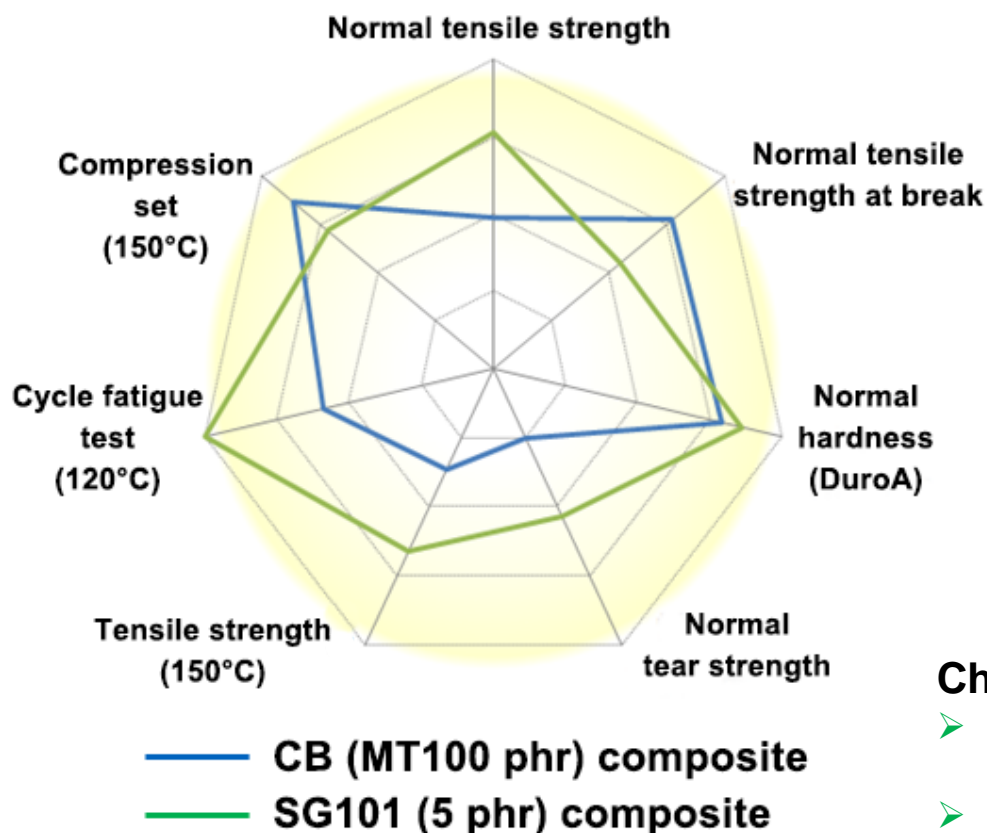
Composite materials with high thermal conductivity



Creating superior functionality in combination with rubber and resin

Integration with existing businesses and creation of new businesses

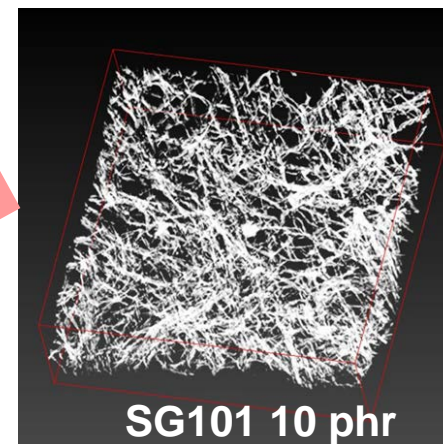
ZEONANO™ SG101 / rubber composite material



Composite material
SG101 10phr



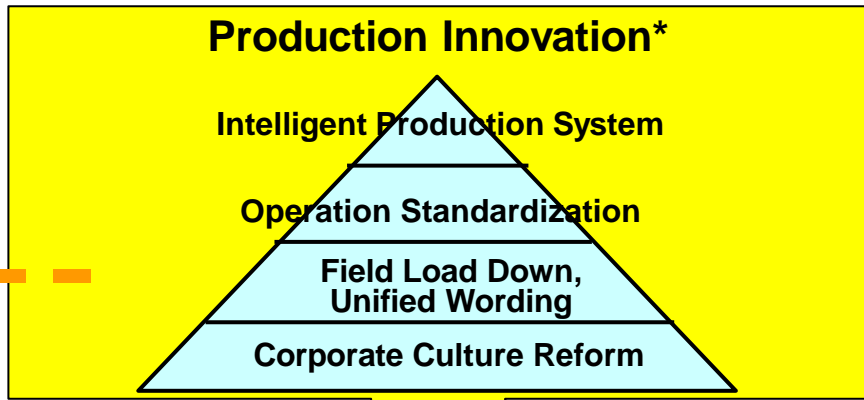
3D-TEM



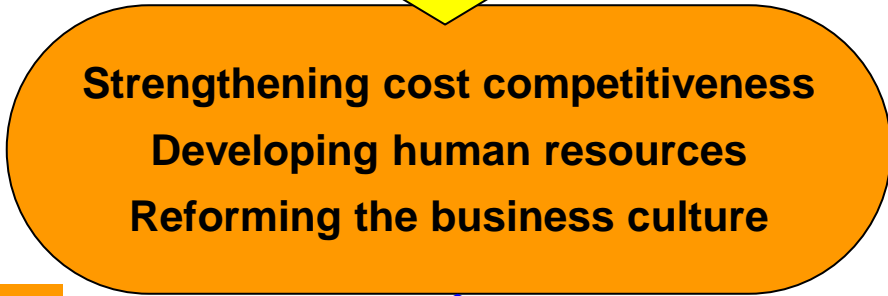
Characteristics

- Enhanced tensile strength and tear strength at normal temperatures
- Significantly enhanced tensile strength and fatigue properties at high temperatures

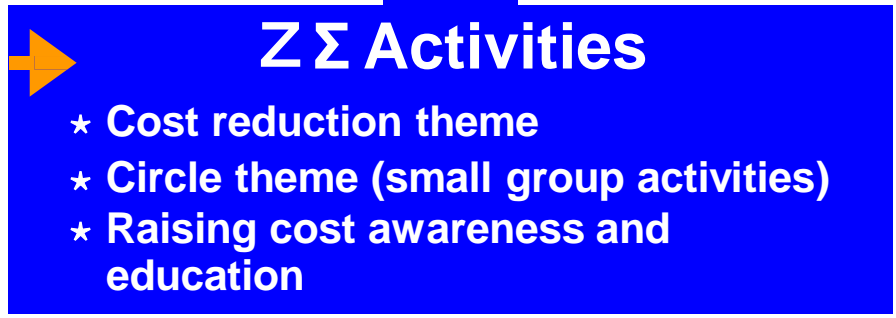
Possibilities as a ground-breaking, high-durability rubber



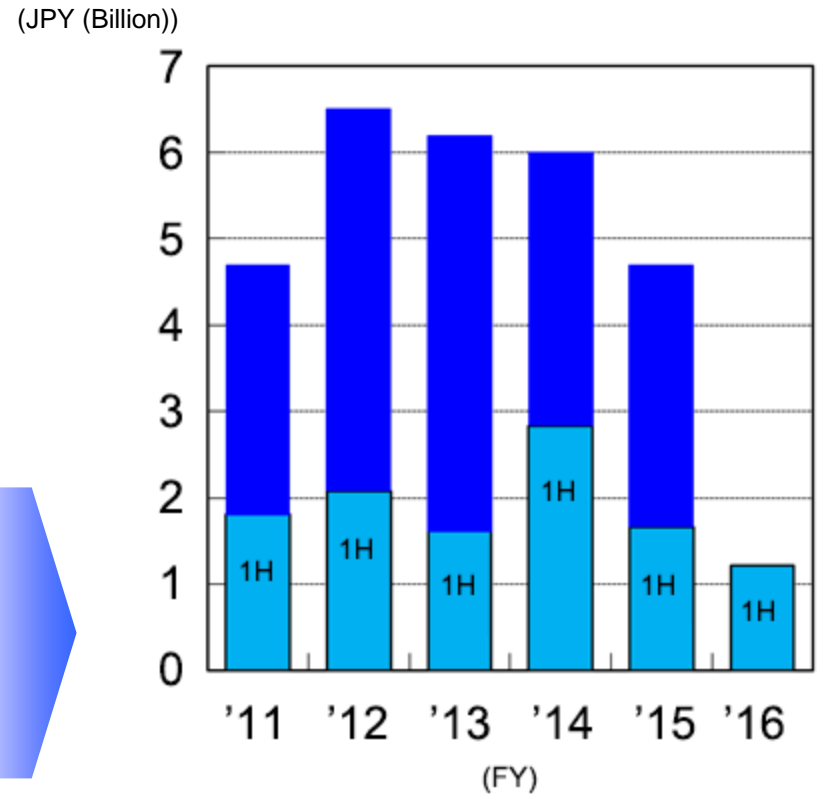
Continuing efforts for Innovation and Improvement



Approved themes



ZΣ Activities – monetary effect

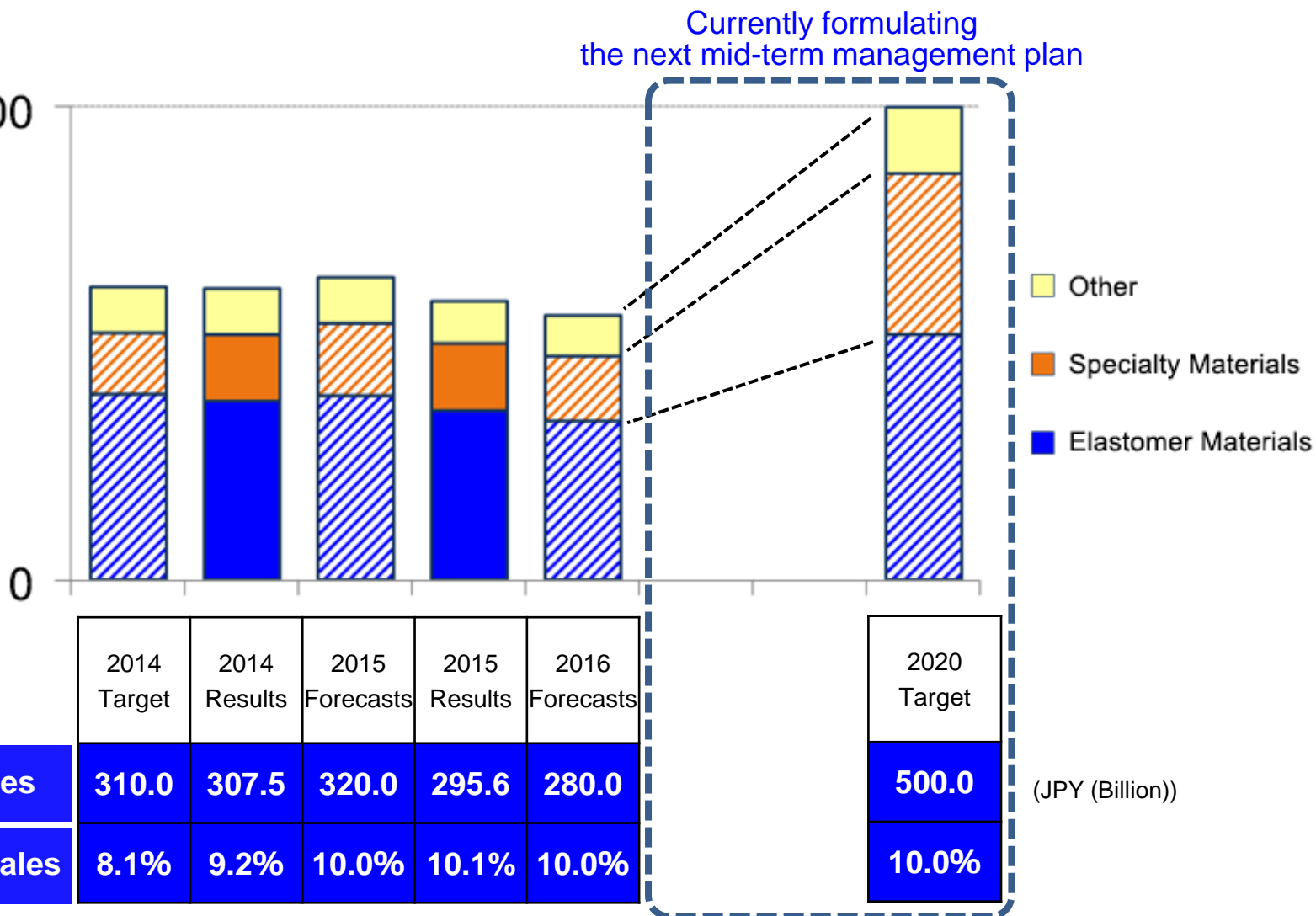


*Production Innovations the Daicel way

Targeting 500 billion JPY in consolidated net sales in FY2020

Net sales
(JPY (Billion))

500



Speed

Dialogue

**Social
Contribution**

Mutual trust and confidence among Zeon members

Zeon's plans, forecasts, and other data appearing in this presentation were calculated based on information which was currently available and therefore includes risks and uncertainties.
Actual results may differ depending on various factors.

ZEON

ZEON CORPORATION

Dept. of Corporate Communications, CSR Division

Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo
100-8246, Japan, Tel: +81-3-3216-2747, Fax: +81-3-3216-0501